

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (cancelled).

Claims 15 – 47 (cancelled).

Claims 48 (new): An apparatus which may be used for air distillation, said apparatus comprising:

- a) at least two cold boxes, wherein said cold boxes comprise:
 - 1) at least one heat exchanger, wherein said heat exchanger comprises a cooling means for cooling the air to be distilled; and
 - 2) at least one air distillation unit, wherein said distillation unit comprises a production means for producing at least one member selected from the group consisting of:
 - i) oxygen;
 - ii) nitrogen; and
 - iii) argon; and
- b) an air treatment unit, wherein said air treatment unit comprises:
 - 1) an air treatment means for treating air to be sent to said distillation units, wherein said air treatment means comprises a plurality of air treatment elements connected in parallel; and
 - 2) an outlet, wherein said outlet is connected to both said cold boxes and to all of said air treatment elements connected in parallel.

Claim 49 (new): The apparatus of claim 48, further comprising a fluid treatment unit, wherein:

- a) said fluid treatment unit comprises:
 - 1) a fluid treatment means for treating a fluid produced by said distillation units, wherein said fluid treatment means comprises a plurality of fluid treatment elements connected in parallel; and

- 2) an inlet, wherein said inlet is connected to both said cold boxes and to all of said fluid treatment elements connected in parallel; and
- b) said fluid treatment elements comprise at least one member selected from the group consisting of:
 - 1) a turbine;
 - 2) a pumping means;
 - 3) a heating means; and
 - 4) a cooling tower.

Claim 50 (new): The apparatus of claim 48, wherein said air treatment elements comprise at least one member selected from the group consisting of:

- a) an air compression means;
- b) an air precooler means;
- c) an adsorber type purifying means;
- d) an expansion turbine; and
- e) an air booster.

Claim 51 (new): The apparatus of claim 50, wherein:

- a) the number of said cold boxes in said apparatus is different from the number of said air treatment elements; and
- b) said air treatment elements comprise at least one member selected from the group consisting of:
 - 1) an air compression means;
 - 2) said air precooler means; and
 - 3) said adsorber type purifying means.

Claim 52 (new): The apparatus of claim 51, wherein said precooler means comprises:

- a) at least two individual precooler units; and
- b) at least one common coolant production means.

Claim 53 (new): The apparatus of claim 52, wherein:

- a) said coolant production means comprises a water/nitrogen cooling tower; and

- b) said tower comprises:
 - 1) a tower inlet header connected to a waste nitrogen outlet of said cold box; and
 - 2) a tower outlet header.

Claim 54 (new): The apparatus of claim 50, wherein said adsorber type purifying means comprises:

- a) at least two individual purifying units; and
- b) at least one common heater means for an adsorbent regeneration gas.

Claim 55 (new): The apparatus of claim 54, wherein said common heater means comprises:

- a) an inlet header connected to a waste nitrogen outlet of said cold box; and
- b) an outlet header.

Claim 56 (new): The apparatus of claim 48, wherein said air treatment unit further comprises at least two air boosters, wherein:

- a) said air boosters are mounted in parallel; and
- b) said air boosters comprise:
 - 1) an air booster inlet connected to a common header; and
 - 2) an air booster outlet connected to said common header.

Claim 57 (new): The apparatus of claim 56, wherein the number of said air boosters is different from the number of cold boxes.

Claim 58 (new): The apparatus of claim 56, wherein:

- a) the number of said air compressors equals the number of said air boosters; and
- b) said boosters and said compressors operate in booster-compressor pairs by sharing a common drive member.

Claim 59 (new): The apparatus of claim 48, wherein each said cold box comprises a production means to produce at least one member selected from the group consisting of:

- a) liquid oxygen;

- b) liquid nitrogen; and
- c) liquid argon.

Claim 60 (new): The apparatus of claim 59, wherein:

- a) said apparatus further comprises at least two pumps mounted in parallel between a pump inlet header and a pump outlet header;
- b) said pump inlet header is connected to said air distillation unit; and
- c) said pump outlet header is connected to said heat exchanger.

Claim 61 (new): The apparatus of claim 60, wherein the number of said pumps is different than the number of cold boxes.

Claim 62 (new): The apparatus of claim 48, wherein:

- a) said air treatment unit further comprises at least two turbines; and
- b) said turbines are mounted in parallel between a turbine inlet header and a turbine outlet header

Claim 63 (new): The apparatus of claim 62, wherein the number of turbines is different from the number of cold boxes.

Claim 64 (new): The apparatus according to claim 50, wherein:

- a) the total number of said air treatment elements and said fluid treatment elements is at least one greater than the number of said cold boxes;
- b) each said air treatment element has about the capacity needed to supply one of said air distillation units; and
- c) each said fluid treatment element has about the capacity needed to treat said fluid for said air distillation unit.

Claim 65 (new): The apparatus of claim 50, wherein:

- a) the total number of said air treatment elements and said fluid treatment elements is at least two greater than the total number of said cold boxes;
- b) each said air treatment element has a capacity greater than needed to supply one of said air distillation units; and

- c) each said fluid treatment element has a capacity greater than needed to treat fluid for said air distillation unit.

Claim 66 (new): An apparatus which may be used for producing at least one of oxygen, nitrogen, and argon by distillation of air comprising at least two cold boxes, each cold box comprising a heat exchange line and an air distillation unit producing at least one oxygen, nitrogen and argon, a treatment unit for treating air to be sent to at least two of the air distillation units using a number of identical elements connected in parallel, said treatment unit having an outlet connected to at least two of the cold boxes and to all of the elements connected in parallel.

Claim 67 (new): An apparatus for producing at least one of oxygen, nitrogen, and argon by distillation of air comprising at least two cold boxes, each cold box comprising a heat exchange line and an air distillation unit producing at least one of oxygen, nitrogen and argon, a treatment unit for treating a fluid produced by at least two of the air distillation units using a number of identical elements connected in parallel, said treatment unit having an inlet connected to at least two of the cold boxes and to all of the elements connected in parallel and the elements of the treatment unit being selected from the group comprising:

- a) turbines;
- b) pumps;
- c) heaters; and
- d) cooling towers.

Claim 68 (new): A method which may be used for the distillation of air, said method comprising:

- a) treating air in an air treatment unit, wherein said air treatment unit comprises a plurality of air treatment elements connected in parallel;
- b) sending said treated air to at least two cold boxes, wherein said cold box comprises:
 - 1) at least one heat exchanger; and
 - 2) at least one air distillation unit, wherein said air distillation unit produces at least one member selected from the group consisting of:

- i) oxygen;
- ii) nitrogen; and
- iii) argon.

Claim 69 (new): The method of claim 68, further comprising treating a fluid from said air distillation unit with a fluid treatment unit, wherein:

- a) said fluid treatment unit comprises:
 - 1) a means for treating a fluid produced by said distillation units, wherein said means comprises a plurality of fluid treatment elements connected in parallel; and
 - 2) an inlet, wherein said inlet is connected to both said cold boxes and to all of said fluid treatment elements connected in parallel; and
- b) said fluid treatment elements comprise at least one member selected from the group consisting of:
 - 1) turbines;
 - 2) pumps;
 - 3) heaters; and
 - 4) cooling towers.

Claim 70 (new): The method of claim 68, wherein said air treatment elements comprise at least one member selected from the group consisting of:

- a) an air compression means;
- b) an air precooler means;
- c) an adsorber type purifying means;
- d) an expansion turbine; and
- e) an air booster.

Claim 71 (new): The method of claim 70, further comprising precooling with a precooler means comprising:

- a) at least two units; and
- b) at least one common coolant production device.

Claim 72 (new): The method of claim 70, further comprising purifying with a adsorber type purifier means comprising:

- a) at least 2 units; and
- b) at least one common heater for an adsorbent regeneration gas.

Claim 73 (new): The method of claim 68, further comprising producing a liquid product with said cold box, wherein said liquid product comprises at least one member selected from the group consisting of:

- a) liquid oxygen;
- b) liquid nitrogen; and
- c) liquid argon.

Claim 74 (new): The method of claim 68, further comprising distilling said air, wherein:

- a) the total number of said air treatment elements and said fluid treatment elements is at least one greater than the number of said cold boxes;
- b) each said air treatment element has about the capacity needed to supply one of said air distillation units; and
- c) each said fluid treatment element has about the capacity needed to treat said fluid for said air distillation unit.

Claim 75 (new): The method of claim 68, further comprising distilling said air, wherein:

- a) the total number of said air treatment elements and said fluid treatment elements is at least two greater than the total number of said cold boxes;
- b) each said air treatment element has a capacity greater than needed to supply one of said air distillation units; and
- c) each said fluid treatment element has a capacity greater than needed to treat fluid for said air distillation unit.

Claim 76 (new): A method for producing at least one of oxygen, nitrogen, and argon by distillation of air comprising at least two cold boxes, each cold box comprising a heat exchange line and an air distillation unit producing at least one of oxygen, nitrogen, and argon, and a treatment unit wherein air to be sent to at least two of the air distillation units is treated in the treatment unit using a number of identical elements connected in parallel to produce treated air, and said treated air is sent to at least two of the cold boxes.

Claim 77 (new): A method for producing at least one oxygen, nitrogen, and argon by distillation of air comprising at least two cold boxes, each cold box comprising a heat exchange line and an air distillation unit producing at least one of oxygen, nitrogen, and argon and a treatment unit for treating a fluid produced by at least two of the air distillation units using an identical number of elements connected in parallel, wherein a fluid produced by at least two of the air distillation units is sent to the treatment unit and removed as a treated fluid, wherein the treated fluid is treated by a process comprising turbine expansion, pumping, heating and cooling.